

Kenai National Wildlife Refuge  
P.O. Box 2139  
Soldotna, AK 99669-2139  
(907) 262-7021

### **COMPATIBILITY DETERMINATION**

*The National Wildlife Refuge System Administration Act of 1966, as amended (16 U.S.C. 668dd-668ee) states that “The Secretary is authorized, under regulations as [s]he may prescribe, to – (A) permit the use of any area within the [National Wildlife Refuge] System for any purpose, including but not limited to hunting, fishing, public recreation and accommodations, and access wherever [s]he determines that such uses are compatible’ and that “... the Secretary shall not initiate or permit a new use of a refuge or expand, renew, or extend an existing use of a refuge, unless the Secretary has determined that the use is a compatible use and that the use is not inconsistent with public safety.” A compatible use is defined as “A proposed or existing wildlife-dependent recreational use or any other use of a national wildlife refuge that, based on sound professional judgment, will not materially interfere with or detract from the fulfillment of the National Wildlife Refuge System mission or the purposes of the national wildlife refuge.” The compatibility determination is to be a written determination signed and dated by the Refuge Manager and Regional Chief of the National Wildlife Refuge System, signifying that a proposed or existing use of a national wildlife refuge is a compatible use or is not a compatible use.*

*Applicable compatibility regulations in 50 CFR Parts 25, 26, and 29 were published in the Federal Register October 18, 2000 (Vol. 65, No. 202, pp 62458 – 62483).*

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**Use:** Hunting

**Refuge:** Kenai National Wildlife Refuge

**Establishing and Acquisition Authorities:** The Refuge was first established as the Kenai National Moose Range by Executive Order 8979 on December 16, 1941. The boundaries were modified, purposes expanded, and name changed to Kenai National Wildlife Refuge under the provisions of the Alaska National Interest Lands Conservation Act (ANILCA) on December 2, 1980 (Public Law 96-487 Stat. 2371).

**Refuge Purposes:** The Executive Order purpose was primarily to “... protect the natural breeding and feeding range of the giant Kenai moose on the Kenai Peninsula, Alaska...”. ANILCA purposes for the Refuge include: “(i) to conserve fish and wildlife populations and habitats in their natural diversity including, but not limited to moose, bear, mountain goats, Dall sheep, wolves and other furbearers, salmonids and other fish, waterfowl and other migratory and nonmigratory birds; (ii) to fulfill the international treaty obligations of the United States with respect to fish and wildlife and their habitats; (iii) to ensure to the maximum extent practicable and in a manner consistent with the purposes set forth in paragraph (i), water quality and necessary water quantity with the refuge; (iv) to provide in a manner consistent with subparagraphs (i) and (ii), opportunities for scientific research, interpretation, environmental education, and land management training; and (v) to provide, in a manner compatible with these purposes, opportunities for fish and wildlife oriented recreation.” The Wilderness Act of 1964 (Public Law 88-577) purposes are to secure an enduring resource of wilderness, to protect and preserve the wilderness character of areas within the National Wilderness Preservation System,

and to administer this wilderness system for the use and enjoyment of the American people in a way that will leave them unimpaired for future use and enjoyment as wilderness.

Policy (FWS 603 2.8) directs that pre-ANILCA purposes remain in force and effect, except to the extent that they may be inconsistent with ANILCA or the Alaska Native Claims Settlement Act, and that such purposes only apply to those areas of the Refuge in existence prior to ANILCA. The Executive Order purpose to protect Kenai moose, however, is treated as complimentary to the broader ANILCA purpose of conserving fish and wildlife populations; therefore, no special attention is given the Executive Order purpose in this compatibility review process.

Sec. 4(a) of the Wilderness Act provides that the purposes of the Act are to be within and supplemental to the purposes for which national wildlife refuges are established and administered. These purposes are applied to the approximately 1.3 million acres of Congressionally designated wilderness within the Refuge. While these purposes do not apply to the remaining approximately 700,000 acres of Refuge lands that are not designated as wilderness, we must consider the effects of uses on any Refuge lands that might affect the wilderness areas.

**National Wildlife Refuge System Mission:** The National Wildlife Refuge System Mission is “To administer a national network of lands and waters for the conservation, management, and where appropriate, restoration of the fish, wildlife, and plant resources and their habitats within the United States for the benefit of present and future generations of Americans.

**Description of Use:** This compatibility determination includes all aspects of the hunting program at Kenai National Wildlife Refuge except for subsistence use, and for black bear baiting, both of which are addressed under separate compatibility determinations.

Hunting on the Refuge is a long-term historical use of the area and is in part responsible for the establishment of the area initially as a refuge (in response to concerns for the conservation of Kenai moose and other wildlife by visiting hunters, area guides, and local conservation advocates). Hunting includes the pursuit of big game (moose, black and brown bears, caribou, mountain goats, Dall sheep, wolves, and wolverines), small game (grouse, hares, ptarmigan, ducks, geese, cranes, and snipe), fur animal (coyote, lynx, and squirrel), unclassified game (shrew, mouse, porcupine, crow, and feral non-native game birds), and deleterious exotic wildlife (starling, English sparrow, Norway rat, raccoon, Belgian hare, rockdove (pigeon), feral ferret, and feral swine). Hunting methods and means are regulated by the State of Alaska and include opportunities, with some restrictions, to use rifle, shotgun, handgun, muzzleloading firearm, or bow and arrow.

Current (2005-2006) Alaska hunting regulations for areas in the Refuge (GMU 15) include the following hunting seasons and bag limits.

Black Bear	July 1 – Dec. 1 (1 bear) & Jan. 1 – June 30 (1 bear) Cubs and females accompanied by cubs are protected
Brown/Grizzly Bear	Oct. 15 – Oct. 31, 1 bear every 4 years by permit only Cubs and females accompanied by cubs are protected Permits will not be issued if quota reached before season
Caribou	Aug. 10 - Sept. 20, 1 bull, by drawing permit within specific areas

Mountain Goat	Variable opening and closing dates Aug. – Nov., 1 goat by drawing or registration permit only Females with young are protected Permits issued for specific areas
Moose	General Season Aug. 20 – Sept. 20, 1 bull with Spike-fork or 50 inch antlers, some area restrictions Archery Season Aug. 10 – Aug. 17, 1 bull with Spike-fork or 50 inch antlers, GMU 15 A&B Special permit hunts, limited areas and no. of permits Oct. 10 – Nov. 10, 1 bull with Spike-fork or 50 inch antlers, or (other areas) Sept. 1 – Sept. 20 or Sept. 26 – Oct. 15, 1 bull with 50 inch antlers (or at least 3 brow tines)
Dall Sheep	General Season Aug. 10 – Sept. 20, 1 ram with full curl Some area restrictions – permit hunt
Wolf	Aug. 10 – Apr. 30, 5 wolves (only 2 from the Refuge)
Wolverine	Sept. 1 – Mar. 31, 1 wolverine
Coyote	Aug. 10 – Apr. 30, 10 coyotes
Lynx	Nov. 10 – Jan. 31, 2 lynx
Squirrel	No closed season, no limit
Spruce Grouse	Aug. 10 – Mar. 31, 10 per day, 20 in possession
Ruffed Grouse	Aug. 10 – Mar. 31, 1 per day, 2 in possession (in aggregate with spruce grouse limit)
Snowshoe Hare	No closed season, no limit
Ptarmigan	Aug. 10 – Mar. 31, 10 per day, 20 in possession
Shrew, Mouse, Porcupine	No closed season, no limit
Crow	Mar. 1 – Apr. 15 and Sept. 1 – Nov. 17, 5 per day Birds may only be taken for food or clothing and may not be sold
Feral Non-Native Game Birds	No closed season, no limit
Deleterious exotic wildlife	No closed season, no limit
Ducks (except sea ducks)	Sept. 1 – Dec. 16, 8 per day, 24 in possession
Sea Ducks	Sept. 1 – Dec. 16, resident hunters may take no more

than 10 per day and 20 in possession for harlequin, long-tailed duck, eiders scoters, and mergansers, of which no more than 6 per day and 12 in possession may be harlequin or long-tailed ducks; non-resident hunters have more restricted daily, possession, and season limits

Geese	Sept. 1 – Dec. 16, Canada and white-fronted geese, 4 per day, 8 in possession; snow and Ross' geese, 3 per day, 6 in possession; brant, 2 per day, 4 in possession
Sandhill Cranes	Sept. 1 – Dec. 16, 2 per day, 4 in possession
Common Snipe	Sept. 1 – Dec. 16, 8 per day, 16 in possession

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The most popular big game hunting on the Refuge by far is for moose, followed by black bear. Spruce grouse are the most popular prey of small game hunters, followed by snowshoe hare during their times of abundance. The hunting of brown bear is extremely limited because of conservation measures that restrict hunting opportunities if the number of bears taken each year in defense of life or property, or other mortality such as road kills, exceeds the number of total bears (or a lesser number of adult females) conservatively believed necessary to sustain the population. Hunting of mountain goats and caribou are by limited permit only and has no general season hunting opportunity. Dall sheep do have a general hunt, but only adult males with full curl horns (or both horns broken/broomed, or aged at 8 or more years) are legal to take. Wolves and wolverines are largely taken incidentally to other game during a hunt, and harvest is generally low. Coyotes and lynx are also taken incidentally, but are also pursued specifically by a limited number of predator callers who enjoy this opportunity in the off season. Red squirrel, while abundant, is not commonly taken. Ruffed grouse, an introduced species, is rare to nearly absent on the Refuge. There is no known hunting of feral game birds, crows, or deleterious exotic wildlife that occurs on the Refuge on any regular basis. Waterfowl hunting is popular in the Chickaloon Flats area as well as along streams, sloughs, and ponds early in the season and on larger lakes and rivers later in the year. The most common waterfowl species taken include mallard, green-wing teal, wigeon, goldeneye, red-breasted merganser, and scaup. Other species include pintail, bufflehead, scoters, and others. Sandhill cranes are hunted in a few areas early in the year but generally migrate before the season progresses more than a couple of weeks. Snipe are relatively abundant in marsh and meadow areas but are not a primary species sought by many hunters.

Most hunting regulations (including seasons, bag limits, and methods and means restrictions) are developed by the Alaska Board of Game through a public process. A Master Memorandum of Understanding with the Alaska Department of Fish and Game describes how the Department and the Refuge describe their interests, responsibilities, and agreed-to processes in managing resident species of wildlife on the Refuge. The U.S. Fish and Wildlife Service, responsible for the management of all national wildlife refuges in Alaska, agrees to use the State's regulatory process in establishing hunting and fishing regulations, unless State regulations are found to be incompatible with Refuge goals, objectives, or management plans. In some cases, Federal regulations also exist that are distinct and different (such as Federal subsistence hunting regulations), sometimes they are additive, such as general Refuge regulations restricting some firearm use on refuges, and in all cases State regulations are assimilated into Federal regulations so that Refuge Officers may enforce any and all State fish and wildlife conservation rules on the Refuge.

Annual hunting regulations are published by the State each year and are the best source of up-to-date information, though complete information is available by referring to the particular State statute. In general regulations are to address wildlife conservation, human use and equity, public safety, and accepted ethical concerns. These include such things as limits on the means of take (caliber restrictions; prohibitions on the use of explosive, fully automatic weapons, use of poison, etc.); tagging, sealing, and reporting requirements; area closures and access restrictions; salvage requirements, and specific seasons and bag limits.

Hunting on the Refuge occurs throughout the year, but is most popular in August, September, and October. Outings vary from short forays after the work or school day for some, to week-long or longer backcountry trips. Access is by highway vehicle, airplane, boat, pack animal, or by foot. Some species may have a variety of methods available to choose from and still be successful, such as hunting waterfowl from a blind at the outlet of Skilak Lake, to walking and “jump shooting” along ponds and sloughs, to canoeing down the Moose or Swanson River. Moose hunting is done both by taking short trips, and by setting up longer term camps, and access to hunting areas occurs through a variety of ways. Moose hunting is somewhat limiting; however, in the distance one can reasonably hunt from a location with access to a boat, plane, highway vehicle, or pack animals. For many hunters this distance is from one to three miles. Sheep hunting is almost always a backpacking adventure, although there are access points that allow for day hunts, and many hunters will also choose to access the backcountry by airplane or pack animal and establish a base camp to hunt from. Most small game hunting is done on day trips, or incidental to longer big game hunting or extended hiking or canoe trips.

The following includes the current management direction and relatively recent harvest estimates for popular big game animals (information obtained from Alaska Department of Fish and Game Federal Aid in Wildlife Restoration Grant Reports). Most often the information is not exclusive to the Kenai NWR but may also include other portions of GMU 15, or the entire Kenai Peninsula (GMUs 7 & 15). More recent information may be available directly from ADF&G.

Species	Management Direction	Recent Harvest Figures
Black Bear	Provide the opportunity to hunt black bears, using seasons and bag limits to regulate the take so we do not exceed an average of 40% females in the harvest, during the most recent three year period	3-year average (2001-2003) 350 bears; 26 percent female
Brown Bear	Maintain a healthy brown bear population, minimize negative brown bear/human interactions, not to exceed 20 human-caused brown bear mortalities (including a maximum of eight females older than one year) calculated as the average mortality based on the most recent three years	In 2000-2001, six of 13, and in 2001-2002, two of 16 reported mortalities were hunter harvest; no hunts held in 2002-2004

Caribou	Kenai Mountains Herd to maintain a post-hunting population of 350-400 animals; Kenai Lowlands Herd objective is to increase numbers to 150 and then provide limited hunting; Killey River and Fox River Herds objectives include re-establishment of caribou in suitable and historic range and provide additional hunting opportunity	Kenai Mountains Herd, 22 in 2004; 19 in 2003. Kenai Lowlands Herd, season closed; Killey River Herd, 16 in 2004; 21 in 2003. Fox River Herd, 1 in 2004; 1 in 2003.
Mountain Goat	Maintain a healthy proportion of kids in each goat permit area – maintain below 50 percent the proportion of nannies in the harvest, and restrict hunting quotas according to conservative assessments of minimum population size	There are 35 goat count areas on the Kenai Peninsula; not all are open each year and less than 10 occur within the Refuge. Through 2002 the ave. total harvest during the past 20 years is 108.
Moose	Maintain a healthy population of moose with a post-hunting bull/cow ratio of at least 15:100 in 15A, except Skilak Loop Wildlife Management Area where the objectives include opportunities to view moose in a natural setting throughout the year and allow harvest when resident moose numbers exceed 130 animals (and maintain bull/cow ratio of at least 40:100).  15B has both permit and non-permit hunts. Most of 15C is outside of the Refuge. 15B East is designed for trophy moose with bull to cow ratios of 40:100. Elsewhere in 15B the goal is to maintain a ratio of 15:100. The goal in 15C is to maintain a minimum sex ration of 15-20 bulls to 100 cows.	Reported harvest in 15A in 1998 was 267; 87 in 1999; 130 in 2000; 227 in 2001; and 139 in 2002. The Skilak Loop Wildlife Management Area included the harvest of 11 cows in 1998 and 8 in 1999.
Dall Sheep	To adequately monitor population trends and allow for hunting opportunities with a sustainable harvest.	Total general season reported ram harvest (all GMU 7 and 15) was 11 in 1999, 14 in 2000, 18 in 2001, 19 in 2002, and 18 in 2003.

**Availability of Resources:** Hunting is a large historic use of Kenai NWR and contributes significantly each year to the cost of administration of the Refuge. The cost include trails, campgrounds, and cabin maintenance; issuance of guide and outfitter permits; surveys and monitoring of wildlife species; providing information to the public; law enforcement; search and

rescue; wildfire management; and planning responsibilities. Current funding is adequate to manage the current program. No funding is currently available, however, for any program adjustments that would require significant additional staff time or other resources.

**Anticipated Impacts of the Use:** Hunting, by definition, results in the removal of individual animals from the population; however, managed properly, this take is a compatible use of a renewable resource. Impacts associated with hunting on Kenai NWR are diverse. Some general hunting season opportunities are open on approximately 97 percent of the Refuge year-round. Hunting opportunities draw visitors to areas that result in many indirect impacts that include such things as trail and campsite erosion, litter, damage or removal of cultural resources, other vandalism, poaching, wild fire, and other such basic costs of general public use of the lands. Most of these impacts are relatively minor in total on a landscape level and most are regulated with State and/or Federal regulations. Because overall use of the Refuge is increasing with time, however, as Southcentral Alaska's population continues to grow, increased use and impact to Refuge resources is expected. As with all users who mishandle campfires, incidental impacts can be substantial. Millions of dollars have been expended managing wildfires on the Refuge that been started from warming and cook fires in remote Refuge locations.

Some users, particularly in more remote locations, have developed long-term camps and stash equipment from year-to-year at these locations. Such sites become littered with tarps, stovepipe, furniture, and other items, much of which may never be removed from the Refuge. Beyond the unsightly nature of this practice, it can draw bears and other wildlife into the area, and also acts as a barrier to other users. Sometimes long-term users of these sites develop feelings of ownership of the area after a number of years of use, and confrontations with other users in the area may occur.

Lead shot is no longer allowed for waterfowl hunting in Alaska, but some use of lead shot still occurs for hunting grouse, ptarmigan, snowshoe hares, and squirrels. Lead shot entering wetlands and ponds is known to contribute to death in waterfowl, and predatory animals feeding on the dead birds carcasses, such as bald eagles. How much lead shot is used each year on the Refuge, how much may enter waterways or wetlands, or how much if any mortality to wildlife occurs over time from the practice is unknown.

Safety is a concern to Refuge managers and is addressed in the Refuge Administration Act, as well as the topic of several State and Federal regulations. Discharge of firearms along roads and trails is the primary concern. No significant injuries have been reported in recent years as result of a hunting accident on the Refuge.

Mistaken identity of game, and known illegal take of wildlife occurs every hunting season. The most obvious examples include the take of sub-legal bull moose or Dall sheep rams during the general hunting seasons. Other examples include the mistaken take of female bears with cubs or the mistaken take of "look alike" wildlife such as the take of a great yellowlegs rather than a common snipe. While such take certainly occurs, there is no information to suggest that it is very common.

The defense of life or property (DLP) take of bears, primarily brown bears occurs nearly every fall hunting season, but also occurs throughout the year and for a variety of reasons. State regulations allow the take of wildlife that threatens the health or substantial property of a individual. Animals taken under this provision must be salvaged and reported to the State. The take of brown bears in such a matter during hunting season may occur around a hunting camp, while packing meat or field dressing a game animal, or upon a chance encounter while stalking in

the woods. Between 1964 and 2005 119 brown bears were reported taken as DLPs within GMU 15. Approximately 30 of these bears were taken in the Refuge, however, not all of these were taken in association with hunting activities.

General status of Kenai NWR big and small game animals currently is believed to be:

Black Bear	Stable to slightly decreasing
Brown Bear	Stable
Caribou	Stable to slightly increasing
Mountain Goat	Decreasing over the last 15 years
Moose	Decreasing in 15A; uncertain in 15B; stable to increasing in 15C
Dall Sheep	Stable to slightly decreasing
Wolf	Stable
Wolverine	Presumed Stable
Coyote	Stable to increasing
Lynx	Stable to slightly decreasing
Squirrel	Stable to decreasing
Spruce Grouse	Stable to decreasing
Ruffed Grouse	Near absent
Ptarmigan	Stable to decreasing
Snowshoe Hare	Slightly increasing from population low

Much of the current population status of wildlife is dependent on recent habitat conditions. Of importance on the Refuge the outbreak of the spruce bark beetle that has impacted over ½ million acres of mature spruce forest. Species dependent upon mature spruce, such as spruce grouse and red squirrel, can be expected to suffer overall for some time. Other species are cyclic (snowshoe hare and lynx) and some species are affected more by severe winters. Hunting has little effect on the population status of most wildlife on the Refuge, except for those species that have low recruitment rates. Conservative conservation measures take this into consideration allowing for small harvests only on such species (i.e. brown bears, mountain goats).

**Public Review and Comment:** This compatibility determination has been prepared while revising the Refuge's Comprehensive Conservation Plan and Environmental Impact Statement. Future revisions can be accomplished outside of this planning process if deemed necessary and would be completed with public notice and involvement. Legal notice of the draft compatibility determination was published in the Anchorage Daily News and the Kenai Peninsula Clarion on



February 25, 2007 which initiated a 45-day public comment period. The notice was also posted on a bulletin board at the Refuge headquarters for the same time period, made available starting February 28, 2007 on a list server [fws-akrefugecompatibility@lists.fws.gov](mailto:fws-akrefugecompatibility@lists.fws.gov) to 137 addresses, and made available on the Regional Planning web site at <http://alaska.fws.gov/nwr/planning/completed.htm>.

Comments on some or all of the (15) compatibility determinations were received from: The State of Alaska, The Wilderness Society, The National Wildlife Refuge Association, Friends of Kenai National Wildlife Refuge, Alaska Trappers Association, Defenders of Wildlife, Kenai Field Office (FWS), and The Humane Society of the United States.\

The State of Alaska supported the compatibility finding but made comments on several aspects regarding the facts within the determination, and adjustments were made where necessary. Friends of Kenai NWR supported the finding also but were concerned that more population information was needed for brown bears and stated that there should be no hunting of wolverines due to a marginal population. They also stated their support for restrictions on use of firearms for hunting within the Skilak Wildlife Recreation Area for wildlife viewing and public safety reasons.

**Determination (check one below):**

☐ Use is Not Compatible

☒ Use is Compatible With Following Stipulations

**Stipulations Necessary to Ensure Compatibility:** State of Alaska hunting seasons, bag limits, and methods and means restrictions are in place to ensure sustainability of area wildlife populations. A master memorandum of understanding with the State of Alaska addresses the need to manage wildlife on the Refuge to meet its purpose for natural diversity. Coordination of Refuge plans and objectives and management practices, subsistence hunting, and other activities is a priority with the Refuge and State partners. Additional Refuge regulations are in place and emergency, temporary, and permanent restriction or closure authority is vested with the Refuge Manager to protect Refuge resources and ensure visitor safety.

Site-specific permit conditions are also included in all commercial use permits for guides, outfitters, transporters, etc. Special area restrictions, such as firearms discharge prohibitions near the Outdoor Education Center, Headquarters Area, and within the Skilak Wildlife Recreation Area are in place for visitor safety and/or to protect other values such as promoting wildlife viewing and photography.

**Justification:** Hunting is a component of one of Kenai National Wildlife Refuge's purposes, and is a recognized priority public use by law – to be facilitated if compatible. The hunting program at the Refuge is unique in what it offers in terms of size, opportunity, diversity, and quality. State and Federal management efforts for decades have worked successfully to sustain and enhance this program and its qualities. Impacts to other resources and opportunities have been recognized and addressed through State and Federal regulations, permits, area closures, and other administrative actions. Adequate authority is given the Refuge Manager to restrict the use as may be necessary to conserve wildlife and habitats, provide necessary public safety, or for other significant

administrative reasons. Long-term public interest and political support for properly administering the hunting program at the Refuge is likely given such support historically.

**Signature (Refuge Manager):** /s/ Robin L. West 6/13/07  
Signature and Date

**Concurrence (Regional Chief):** /s/ Todd J. Logan 8/14/07  
Signature and Date

**Mandatory 15-year Re-evaluation Date:** 8/14/22